

DEPARTMENT OF DEVELOPMENT AND ENVIRONMENTAL SERVICES LAND USE SERVICES DIVISION KING COUNTY, WASHINGTON

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MIDPOINT REVIEW REPORT

FOR

REDMOND RIDGE

(formerly known as Northridge)

and

TRILOGY AT REDMOND RIDGE

(formerly known as Blakely Ridge)

DDES FILE NO. L03MI042

NOVEMBER 13, 2006

I. <u>DESCRIPTION OF REDMOND RIDGE AND TRILOGY AT REDMOND RIDGE</u>

Redmond Ridge and Trilogy at Redmond Ridge are two, adjacent, master planned communities located along Novelty Hill Rd., lying approximately three miles east of the City of Redmond and west of the rim of the Snoqualmie Valley. Trilogy was the first of these two developments to be approved by King County, under an Urban Planned Development permit. Trilogy received approval by the County Council in December, 1995. Trilogy is designed to be a senior community, wherein at least one member of each household must be at least 55 years old, and no one under age 18 is permitted to live there. As approved by the County, a maximum of 2,250 dwelling units may be developed in Trilogy in both detached single-family and multi-family residences and up to 200 additional dwelling units may be developed for senior "assisted living".

Redmond Ridge was approved by the County under both an Urban Planned Development (UPD) permit and a Fully Contained Community (FCC) permit. Redmond Ridge was approved by the County Council in January, 1997. Redmond Ridge was permitted to have a maximum of 1500 dwelling units in both detached single-family and multi-family residences.

One of the objectives in the development of these two projects is to provide many of the services and facilities people utilize on a daily basis, to limit their need to travel outside of the immediate area. Thus, the two projects contain two retail shopping centers; an 18-hole public golf course; a members-only recreation and community center for Trilogy residents; a community center in Redmond Ridge containing a YMCA; a 10-acre County park containing two athletic fields; numerous neighborhood parks that include children's play equipment; large, natural open space tracts with trails utilized by pedestrians, equestrians and bicyclists; and a business park allowing up to 1.2 million square feet of gross floor area that will provide employment opportunities for Redmond Ridge and Trilogy residents.

The County, in its approval of Redmond Ridge and Trilogy, adopted a condition which provided for a "midpoint" review of the two projects, to ascertain whether cumulative impacts from the projects were occurring to the degree and scope previously predicted in the environmental impacts statements, and to ascertain whether the development conditions adopted for the projects to address impacts were sufficient. The report contained herein provides that "midpoint" review.

II. UPD/FCC MIDPOINT REVIEW REQUIREMENT

The condition requiring the UPD/FCC Midpoint Review of Cumulative Impacts is identical for both Redmond Ridge and Trilogy at Redmond Ridge. Redmond Ridge was approved after Trilogy, and Section 3.10 of the Redmond Ridge permit replaced Trilogy's original midpoint condition (Section 3.9.3) with the version contained within Redmond Ridge. The Midpoint condition reads as follows:

Midpoint Review of Cumulative Impacts

- a. At the point where building permits have been issued for 2,500 dwelling units at Blakely Ridge and Northridge together, DDES shall perform a single comprehensive review of the combined cumulative impacts of the Northridge UPD/FCC and the Blakely Ridge UPD and shall issue findings, conclusions, and a recommendation as provided below. This review shall determine whether the cumulative impacts of the two projects fall within the range of environmental impacts identified and projected within the SEPA documents; whether such impacts have been adequately mitigated; and whether the projects comply with their respective UPD/FCC and UPD permit conditions regulating their cumulative impacts.
- b. The preliminary plat hearing for the Northridge South plat may be combined with the appeal hearing, if any, held on the DDES midpoint review as provided below, and the DDES review may incorporate relevant portions of any SEPA documents prepared for Northridge South which analyze cumulative UPD impacts.
- c. When the midpoint review threshold identified in subparagraph a, above, has been reached, DDES shall issue written notice to the two UPD developers to each submit within 90 days midpoint review documentation summarizing their respective project impacts and compliance with mitigations and conditions to date. In addition, the two UPD developers shall each pay one-half of the midpoint review costs incurred by King County. As part of its midpoint review, DDES shall provide notice and conduct a public hearing to receive comments from the public as to cumulative impacts.

Not later than 90 days following receipt of cumulative impact summaries from the two UPD developers, DDES shall issue its proposed findings, conclusions and recommendation, which shall be mailed to the UPD developers, the Hearing Examiner and all Northridge parties of record. If a UPD developer fails to submit satisfactory midpoint review documentation regarding its project within the 90-day period after notice has been issued as required herein, further permits shall not be approved for that UPD development until the required documentation has been submitted.

- d. The review of cumulative impacts of the two projects shall include, but shall not be limited to, analysis of the following issues. The comprehensive review performed by DDES need not include, however, a detailed discussion of cumulative impacts other than those listed below if general findings are made that such other impacts are in compliance with the review standards contained in the second sentence of Section 3.9.a above.
 - 1. Groundwater impacts to area wells, excluding the Dawnbreaker well.
 - 2. Welcome Lake phosphorus loading and eutrophication.
 - 3. The adequacy of Novelty Hill Road and other area roads and intersections impacted by Northridge and Blakely Ridge development to meet adopted service standards, including consideration of the following specific topics:
 - *i.* The accuracy of background traffic level forecasts;
 - ii. Levels of traffic generated cumulatively by Northridge and Blakely Ridge;
 - iii. The accuracy of assumptions made regarding traffic generation by senior populations and business park employees;
 - iv. The safety and efficiency of turning movements to and from Novelty Hill Road;
 - v. The adequacy of transportation management strategies to reduce traffic impacts;
 - vi. The effects of increased traffic volumes, including cutthrough traffic, on the 216/118th Avenue Northeast corridor;
 - vii. Identification of any intersections operating at LOS F which are impacted by UPD/FCC traffic; and
 - viii. Identification of critical road links impacted by UPD/FCC traffic which are over capacity.
- e. The DDES review of above-stated cumulative UPD/FCC impacts required herein ("the DDES midpoint review analysis") shall result in written findings and conclusions plus a recommendation for new future permit conditions and mitigations for Blakely Ridge and/or Northridge, as required. Proposed conditions and mitigations applicable to future permits and associated mitigation within either or both projects shall be revised if DDES finds that the conditions or mitigation measures imposed pursuant to the County's standards in effect at the time of UPD approval have resulted in an unsatisfactory level of mitigation, either because the degree of mitigation is substantially inadequate or the quantity of impact

demonstrated to be attributable to UPD development significantly exceeds levels predicted. New permit conditions and mitigations imposed for cumulative impacts through the midpoint review process shall comply with the following standards and limitations:

- i. No new standards or requirements shall be imposed upon property in any plat recorded within 60 months of UPD approval as defined in 4.1.c, below to the extent that such standards or requirements would affect infrastructure serving said property also constructed within the 60 month timeframe.
- ii. Performance standards more stringent than those contained in the original UPD permit shall not be imposed unless a finding has been made that the original standards have allowed (or will allow) significant adverse impacts to occur. Under no circumstances shall more stringent traffic level of service standards be applied.
- iii. No retrofitting or major modification shall be required for facilities properly installed in accordance with UPD or UPD/FCC permits unless such is determined necessary to avoid a threat to public health or safety or a significant adverse environmental impact, and such impact or threat cannot be mitigated by requirements imposed upon or downsizing of UPD development yet to be constructed.
- iv. New conditions and mitigations must be reasonable and achievable without compromising other UPD permit requirements.
- v. Conditions and mitigations applicable to a UPD shall be modified only to the extent that cumulative impacts are demonstrated to be the result of development of such project. If cumulative impacts have been demonstrated to exist but cannot be definitively allocated between the two UPDs, responsibility for mitigation shall be apportioned equitably based on objective causal factors (e.g., acreage, housing units). Any mitigations or conditions imposed shall specify clearly which project and which portion thereof to which they apply.
- vi. The traffic Memorandum of Understanding with the City of Redmond precludes the imposition of additional mitigation on Blakely Ridge for Redmond traffic impacts.
- f. The Blakely Ridge applicant, the Northridge applicant, or any other party of record may appeal the DDES midpoint review analysis within 21 days of the date of its issuance by filing an appeal statement with the Director of DDES, plus a fee in the amount then applicable to an administrative appeal of a SEPA threshold determination. The appeal statement shall specify in detail the errors alleged to exist in the DDES midpoint review analysis.

- g. If one or more timely appeals are filed of DDES' midpoint review analysis, they shall be adjudicated by the Hearing Examiner as a single Type 3 decision pursuant to Ordinance 12126, Section 25. The DDES midpoint review analysis shall be upheld on appeal unless found to be clearly erroneous based on the record as a whole.
- h. The Hearing Examiner's decision on the DDES midpoint review analysis shall be appealable to the Metropolitan King County Council pursuant to KCC 20.24.-.210(D). Any such appeal shall state whether it seeks to affect conditions or mitigations imposed on Blakely Ridge, Northridge, or both. Any such appeal shall be consolidated with any appeal to the Council of a contemporaneous Hearing Examiner's decision on Northridge South.
- i. If no timely appeal of the DDES midpoint review analysis is received, its findings, conclusions, and recommendation shall become final and non-appealable 21 days after issuance. If an appeal is filed, the time required for determination of such appeal shall be excluded from the approval period for any UPD/FCC permit and preliminary plat in effect on the date of issuance of the DDES review.

III. STATUS OF PROJECT BUILDOUT AND REMAINING DEVELOPMENT

The Redmond Ridge UPD is now fully built and occupied with the exception of the business park, and two retail buildings in the Redmond Ridge shopping center. Redmond Ridge includes 1,500 residential dwelling units; a 64,415 square foot retail center (including the final 16,953 square feet now under construction in two buildings); Rosa Parks Elementary School; Fire District 34's Station No. 18; a 4,037 square foot community center building housing a YMCA facility; a community center building housing the residential homeowners association offices; and the Redmond Ridge King County Park.

Within the Redmond Ridge business park, all required infrastructure (i.e., roads, storm water facilities and utilities) are installed. Two of the 28 business park lots are developed and occupied, while building permits are pending on six other lots, four of which have commenced land development activity. When constructed, the remaining 20 building sites in the business park and the two retail buildings now under construction in the retail shopping center will complete all of the development for the Redmond Ridge UPD/FCC.

Trilogy at Redmond Ridge now contains 1,233 residential dwelling units/lots, of which 1,001 were developed and occupied as of September 30, 2006. Additional pending projects now in final review include the creation of another 226 residential lots, and three multi-family building permits containing 477 dwelling units. These projects (both pending and completed) will create a total of 1,936

residential dwelling units/lots in Trilogy. In addition to these 1,936 units, planning is underway for an additional 215 units, which, when developed, will result in a total of 2,151 residential dwelling units in Trilogy. An optional, congregate-care (assisted living) facility in Trilogy is not being pursued by the applicants, which could have added 200 more dwelling units to Trilogy.

The following non-residential uses in Trilogy are currently built and fully operational: the public golf course and maintenance facilities; the golf course pro shop and restaurant; the community recreation and education center buildings and park; the southern neighborhood park; and the recreational vehicle/boat storage area. Within the Trilogy retail center, the QFC grocery store and 33,158 square feet of other retail uses are in operation, with an additional 18,997 square feet of retail space under construction or pending approval. Two pads in the Trilogy retail center remain available for additional development.

Both the equestrian park and Little League park sites in Trilogy were deeded to King County with the recording of the first Trilogy plat, but the Trilogy UPD permit did not require any improvements to these park sites. Quadrant has, however, reached agreement with the King County Parks Division, with input from members of the local equestrian community, to develop the equestrian park which is now named Kathryn Taylor Park. This agreement to develop the equestrian park by Quadrant is in exchange for Quadrant's interim use of the property as part of their UPD soils management plan. Plans for the development of the equestrian park are in the design stage, and include a riding arena, trails, a parking lot, and re-vegetation of the site. The equestrian park is expected to open in the Fall of 2007. No development is currently proposed for the King County Little League Park.

Both Redmond Ridge and Trilogy have made significant progress towards project build-out. Although the midpoint trigger was structured anticipating that it would occur roughly halfway through project build-out, in certain respects, that has not been the case. The adopted midpoint trigger was the issuance of 2,500 residential building permits. This threshold was reached in May, 2006, and the Midpoint review process was then initiated by DDES. Since that time, development activity has steadily continued as allowed by the UPD/FCC permits, including the submittal of building permits for two large multi-family projects.

At present, as previously noted, all of the residences in Redmond Ridge are constructed and occupied. In Trilogy at Redmond Ridge, only 215 lots remain to be platted, and another 273 platted lots in Trilogy remain to be developed (for a total of 488 undeveloped lots in Trilogy). In the Redmond Ridge business park, building permits for 20 of the 28 lots are yet to be submitted, however, construction of the last two buildings in the Redmond Ridge shopping center is nearly complete, and only two small parcels in the Trilogy shopping center remain to be developed. Thus, there is a limited portion of Redmond Ridge and

Trilogy which would be subject to modified permit conditions under the Midpoint review, if such conditions were applied.

The following table provides a summary of current and projected development:

Redmond Ridge				
	<u>Permit</u>	Approved or	Projected at	Percent of
		Pending	<u>Project</u>	Maximum
			Completion	Allowed
Residential Units	1300 units min.	1500 units	1500 units	100%
	1500 units max.			
Retail	105,851 sq. ft.	64,415 sq. ft.	64,415 sq. ft.	61%
Business Park	1,200,000 sq. ft.	314,717 sq. ft.		

Trilogy at Redmond Ridge				
	<u>Permit</u>	Approved or	Projected at	Percent of
		Pending	<u>Project</u>	<u>Maximum</u>
			Completion	Allowed
Residential Units	1800 units min.	1233 units current	2151 units	96%
	2250 units max.	(1936 with pending		
		permits)		
Retail	125,000 sq. ft.	103,563 sq. ft.		

IV. DESCRIPTION OF MIDPOINT REVIEW PROCESS

The conditions adopted by King County requiring the Midpoint Review process identified certain steps which must be taken to complete the midpoint analysis. As noted above, one of the required steps was that, prior to publication of this report, DDES must conduct a public hearing to receive comments from members of the public on the perceived cumulative impacts from the Redmond Ridge and Trilogy at Redmond Ridge UPD/FCC's.

On June 5, 2006, a notice was mailed to property owners who own property within the boundaries of Redmond Ridge and Trilogy at Redmond Ridge, as well as to property owners who own property lying within 500 feet of these two developments, advising these property owners of the opportunity to attend a public meeting on June 21, 2006 for the above-stated purpose. Notice for this meeting was also mailed to "parties-of-record" from the original public hearing process for Redmond Ridge (Northridge) and Trilogy at Redmond Ridge (Blakely Ridge). The notice indicated to readers that either verbal or written comments could be offered at the public meeting, or written comments could be submitted to the County for consideration without attending the meeting.

In addition to the mailed notice referred to above, notification of the June 21, 2006 public meeting was published on June 5, 2006 in both the Seattle Times newspaper and the King County Journal newspaper. In addition, on June 6, 2006, notice board signs giving notice of the public meeting were placed by the project applicant at five different locations where arterial roadways enter the Redmond Ridge and Trilogy at Redmond Ridge UPD/FCC developments, as directed by DDES staff.

On June 21, 2006, the public meeting was held in the evening between the hours 7:00 p.m. to 9:00 p.m. This meeting was conducted in a "workshop" setting, with multiple tables staffed by County personnel from three different County departments (Water and Land Resources, Transportation, and DDES). The workshop setting was chosen in order to maximize the opportunities for members of the public to relay their comments and concerns to County staff on the perceived impacts of Redmond Ridge and Trilogy at Redmond Ridge. In addition to the individual tables staffed by County personnel, a court reporter was present to take verbal testimony from those individuals who wished to offer comments in this fashion. Approximately 120 people attended the meeting. Letters and other written comments were submitted both before, during, and after the Public Meeting, and were received by DDES up through June 29, 2006.

Following completion of the Public Meeting, County staff reviewed the public comments and determined which subjects needed further review as part of the Midpoint analysis. Per the County adopted UPD permit condition mandating the Midpoint process, the project applicants, the Quadrant Corp. and Shea Homes, were required to prepare a report "...summarizing... project impacts and compliance with mitigations and conditions to date." (Redmond Ridge UPD Permit Sec. 3.9c) In this regard, County staff met with the project applicants and their consultants on several occasions, and gave direction to the applicants as to which subjects needed in-depth study and detailed reports. This direction was based not only on the public comments that had been received, which gave staff a fuller understanding of those matters of concern to the public, but also based on staff's observations over the life of the construction of the two projects to date, and on-going monitoring of stormwater impacts, groundwater impacts, aquatic

wildlife, and roadway and traffic circulation that has occurred since development of the two projects began.

Per Redmond Ridge UPD Permit Sec. 3.9c, the applicants' consultant, Hugh G. Goldsmith & Associates, Inc., submitted to King County on August 14, 2006, the applicants' Midpoint analysis entitled "Redmond Ridge & Trilogy Midpoint Review Summary Document of Findings," which also included several appendices. County staff subsequently reviewed this document and asked the applicant to provide additional information and analysis in the areas of police and fire, schools, and traffic impacts. In response to staff's request, the applicants' consultants submitted the requested information. These reports, as well as County staff's own observations and monitoring of the two developments, have resulted in the findings and conclusions which follow below.

V. FINDINGS

A. SCOPE OF REVIEW

- 1. Redmond Ridge UPD Permit Sections 3.9a and d, concerning the purpose and scope of the Midpoint analysis, read as follows:
 - a. At the point where building permits have been issued for 2,500 dwelling units at Blakely Ridge and Northridge together, DDES shall perform a single comprehensive review of the combined cumulative impacts of the Northridge UPD/FCC and the Blakely Ridge UPD and shall issue findings, conclusions, and a recommendation as provided below. This review shall determine whether the cumulative impacts of the two projects fall within the range of environmental impacts identified and projected within the SEPA documents; whether such impacts have been adequately mitigated; and whether the projects comply with their respective UPD/FCC and UPD permit conditions regulating their cumulative impacts.

...

d. The review of cumulative impacts of the two projects shall include, but shall not be limited to, analysis of the following issues. The comprehensive review performed by DDES need not include, however, a detailed discussion of cumulative impacts other than those listed below if general findings are made that such other impacts are in compliance

with the review standards contained in the second sentence of Section 3.9.a above.

- 1. Groundwater impacts to area wells, excluding the Dawnbreaker well.
- 2. Welcome Lake phosphorus loading and eutrophication.
- 3. The adequacy of Novelty Hill Road and other area roads and intersections impacted by Northridge and Blakely Ridge development to meet adopted service standards, including consideration of the following specific topics:
 - *i.* The accuracy of background traffic level forecasts;
 - ii. Levels of traffic generated cumulatively by Northridge and Blakely Ridge;
 - iii. The accuracy of assumptions made regarding traffic generation by senior populations and business park employees;
 - iv. The safety and efficiency of turning movements to and from Novelty Hill Road;
 - v. The adequacy of transportation management strategies to reduce traffic impacts;
 - vi. The effects of increased traffic volumes, including cut-through traffic, on the 216/118th Avenue Northeast corridor;
 - vii. Identification of any intersections operating at LOS F which are impacted by UPD/FCC traffic; and
 - viii. Identification of critical road links impacted by UPD/FCC traffic which are over capacity.

(emphasis added)

2. Consistent with the above provisions, DDES has concluded there are nine general categories for which the detailed study of impacts, as part of the Midpoint Review process, is not necessary or required. These areas are solid waste; energy; recreation; wildlife; landslide activity; population, employment and housing; public water and sewer service; aesthetics, light and glare; and air quality.

DDES has determined that for these nine areas, consistent with Redmond Ridge UPD Permit Sec. 3.9a, the cumulative impacts from Redmond Ridge and Trilogy at Redmond Ridge:

- fall within the range of environmental impacts identified and projected in the Environmental Impact Statements originally prepared for these two projects,
- o the cumulative impacts that have occurred in these areas have been adequately mitigated,
- o and the applicants have thus far, in their development of these two projects, complied with the relevant adopted UPD/FCC permit conditions.

This finding is based on the fact that no evidence has been observed or brought to light, either through citizen comments or staff review, which indicates that environmental impacts have occurred in these nine areas that were outside the scope of impacts projected in the Northridge and Blakely Ridge Environmental Impact Statements. Findings concerning other areas of review follow below.

B. <u>FACILITIES AND SERVICES</u>

- 1. <u>Schools</u>: The Redmond Ridge (Northridge) EIS projected that Redmond Ridge would generate a total of 995 school students at full build-out. This projection included:
 - 635 elementary students
 - 204 junior high students
 - 156 senior high students

The Trilogy at Redmond Ridge (Blakely Ridge) EIS assumed no school-aged children would be generated by Trilogy, since Trilogy was to include an age restriction precluding children under 18 years of age from living there.

As of this writing, the residential portion of Redmond Ridge is fully built and occupied; thus, this allows an easy comparison between the projected number of students Redmond Ridge was anticipated to generate, and the number of students that in fact have been generated.

Per information from the Lake Washington School District, Redmond Ridge has generated 528 students at full build-out, broken-down as:

• 362 elementary students

- 100 junior high students
- 66 senior high students

Thus, one can see from the above numbers that the school impacts from these two UPD/FCC developments, measured in terms of students generated, is significantly less than anticipated in the project EISs. Based on the total number of students, Redmond Ridge is currently generating approximately 53% or roughly half of the number of students projected in the Redmond Ridge EIS.

With regard to mitigating project impacts and compliance with the UPD/FCC permit conditions, the Redmond Ridge applicant was required to provide a school site in Redmond Ridge for a new elementary school; reserve a second school site in Redmond Ridge for purchase by the Lake Washington School District if the number of students generated by Redmond Ridge turned out to be greater than was projected in the EIS; and pay school impact fees to the District to fund future school facilities, consistent with County regulations.

The first school site has been provided by the applicant to the District, and in Fall of 2006, the District completed construction and opened Rosa Parks Elementary within Redmond Ridge. The District has determined that a second school site is not needed in Redmond Ridge (July 21, 1999 letter from Robert Collard, Assistant Superintendent, submitted as part of the Redmond Ridge South plat hearing process). Finally, approximately \$2.37 million in school impact fees have been collected as part of the issuance of residential building permits for the 1500 dwelling units in Redmond Ridge.

2. <u>Police</u>: The Redmond Ridge EIS evaluated impacts both from the development of Redmond Ridge alone, as well as cumulative impacts from Redmond Ridge and Trilogy at Redmond Ridge combined. The EIS projected that, with the full build-out of these two UPDs estimated to be completed in 2005, a range of 1,454 to 1,582 calls for police services per year would occur. This estimate was based on an assumption that there would be a total of 3,750 dwelling units developed in the two UPDs.

While the residential portion of Redmond Ridge is now fully built and occupied, construction and occupancy of all the dwelling units planned for Trilogy at Redmond Ridge has not yet been completed. At the close of 2005, it is estimated there were a total 2,155 dwelling units built and occupied in Redmond Ridge and Trilogy.

Based on the above-noted EIS estimate of annual calls for police service from the two fully-built UPDs, it can be extrapolated that, at the close of 2005, the EIS analysis would yield an annual total of 829 to 902 calls for police services for the two projects.

Contact by the applicant's consultant with the King County Sheriff's Office indicated that the Sheriff's Office estimates there were 220 calls for police service from Redmond Ridge and Trilogy during the 2005 calendar year. This number is obviously significantly less than the number extrapolated from the EIS analysis for annual service calls in 2005 (829 to 902). Thus, it appears that impacts on police services from the development of Redmond Ridge and Trilogy at Redmond Ridge falls well below the range of impacts predicted through the SEPA process.

With regard to compliance with the relevant UPD conditions to mitigate impacts on police services, the applicant was required to provide a new fire station in Redmond Ridge, and within the fire station, provide "...a 'storefront' police office, up to 300 square feet in area..." (Sec. 2.9, Redmond Ridge UPD Permit and Sec. 2.11, Trilogy UPD Permit) Construction of this fire station was completed in 2006 and is now operational. Office space for the Sheriff's Office was provided in the fire station, and the Sheriff's Office has indicated it expects to begin utilizing that space by the end of this year.

The Redmond Ridge EIS projected that, with the full development of Redmond Ridge and Trilogy, there would be a need for nine additional police officers and one to two support staff. More recently, the King County Sheriff's Office stated in response to an inquiry from the applicant's consultant that there is currently enough staff to adequately provide police services to the two UPD developments, however, with the completion of these projects in the future, the Sheriff's Office stated there may be a need to increase staff by approximately three additional officers. DDES expects that the funding for these three officers can and should be addressed through normal King County budget process for the Sheriff's Office.

2. <u>Fire and Emergency Services</u>: As noted above, the Redmond Ridge EIS evaluated cumulative impacts from the development of both Redmond Ridge and Trilogy at Redmond Ridge. The EIS projected that, with the development of these two UPD/FCC's, there would be an additional 1,110 calls for fire and emergency

services. This estimate was based on an assumption of 3,750 dwelling units being developed in these projects.

In order to compare the level of impacts on fire and emergency services which were projected to occur in the EIS at *full build-out* with the level of impacts that have occurred to date, one must account for the fact that the residential portion of Trilogy is not yet completely developed. At the close of 2005, there were 2,155 occupied dwelling units in Redmond Ridge and Trilogy. This number represents approximately 57% of the 3,750 total unit count used for the cumulative impact analysis in the Redmond Ridge EIS. Thus, it can be extrapolated that the EIS would have projected 2,155 dwelling units in Redmond Ridge and Trilogy would generate 638 calls for fire and emergency services. King County Fire District 34, however, has indicated that, based on their records, there were a total of 119 service calls for fire and emergency services from Redmond Ridge and Trilogy in 2005. Thus, the level of impact on fire and emergency services from the development of Redmond Ridge and Trilogy, so far, is significantly less than was projected by the EIS process. Only 19% of the number of calls projected to originate from Redmond Ridge and Trilogy for fire and emergency services have in fact occurred.

With regard to mitigating the impacts on fire and emergency services from the development of Redmond and Trilogy, the applicants were required under the UPD permits to provide a site to Fire District 34, in Redmond Ridge, for the construction of a new fire station. The applicants were also required to make a monetary payment, consistent with an agreement between the applicants and the Fire District, to fund the construction of the new fire station and the provisioning of equipment for it. As noted above, Fire District 34's new Station #18, located in Redmond Ridge, was completed in 2006 and is currently in operation.

Fire District 34 elected to close an existing station, Station #15, when it opened Station #18 in Redmond Ridge. The District also transferred the staff from Station #15 to Station #18. Certain citizens have advocated for the opening of another fire station in Fire District 34 to account for the loss of Station #15. However, the District indicated in response to an inquiry from the applicants' consultant that, while staffing numbers have not changed in the District since the publication of the 1995 Redmond Ridge EIS, the Fire District Commissioners and senior Fire District staff do not support increasing staffing or adding another station in the District.

They believe that the current staffing level is appropriate for the call volumes received and the response time goals of the District.

C. NOISE IMPACTS

Several residents living within Trilogy at Redmond Ridge expressed concerns about the noise emanating from Novelty Hill Road. The complaints were focused on the early morning noise from truck traffic traveling up the hill on Novelty Hill Road from the Snoqualmie Valley. These homes are typically setback sixty-five to seventy-five feet from the edge of the Novelty Hill Road right-of-way. A buffer of mixed native vegetation exists between the homes and the road; however no fence or other solid barrier exists here.

The Trilogy at Redmond Ridge (Blakely Ridge) EIS evaluated noise resulting from construction traffic and noise occurring within the Blakely Ridge development. Only one noise sampling site was established on Novelty Hill Road and this was at the location of NE Novelty Hill Road and 214th Ave NE (Westchester Estates) at a distance of 110 feet from the road. In 1990 the noise level at this location was measured at 64 decibels. The EIS projected the 2000 noise level at this location, factoring in the Blakely Ridge development, at 68 decibels and the projection rises to 71 decibels when the 2000 cumulative development (including Blakely Ridge and all background traffic) is factored in.

A draft noise report is being prepared as part of the Novelty Hill Road Capital Improvement environmental analysis. It placed numerous receptors along Novelty Hill Road, including one in the location of the Trilogy resident's homes who have raised the concern about traffic noise. The study indicates that a measurement taken 110 feet from the road of existing conditions resulted in 63 decibels. This is less than the noise level of 64 decibels that was measured on Novelty Hill Road in 1990, although at a different location along Novelty Hill Road. The measured noise level does not however, exceed the projections of 68-71 decibels anticipated in the Blakely Ridge EIS for the year 2000.

D. WATER RESOURCES

1. <u>Surface Water</u>: Master Drainage Plans were developed specifically for both Redmond Ridge and Trilogy at Redmond Ridge, and were designed to protect water resources. Extensive analysis was undertaken to evaluate the groundwater environment, with particular regard to individual and community wells. Welcome Lake is one of the water resources that is located downstream of a portion of these projects, and was specifically

identified as an area of concern. The Master Drainage Plans were developed in conjunction with the EISs to provide a mechanism to implement identified mitigation requirements, for the protection of each of the water resources. Each of the water resources (surface water, ground water, and Welcome Lake) are subject to monitoring before, during and after development. The initial monitoring provides the parameters for stormwater infrastructure design. During construction, the emphasis of monitoring and the stormwater facilities is on containing the disturbed soils and preventing soil erosion, as well as adherence to the design requirements. Following construction, the UPD Permit requires that the performance of the storm water facilities be evaluated to determine if they are providing the expected results.

Surface water resources are significant in that the UPD projects are located at the headwaters for several streams, and are interspersed with high quality wetlands. Both UPD projects drain to the Bear-Evans Creek watershed, which drains to the Sammamish River. The eastern portion of Trilogy drains to the Snoqualmie River. To protect the wetlands, wetland buffers were implemented which were generally double the width of the County standards at the time the UPDs were approved, and even exceed the current CAO standards of today in most locations. These wetland buffers are used to disperse and absorb runoff from the stormwater detention pond outlets. The means of outlet dispersal was modified from the methods shown in the EISs, to provide the required results with a minimum of disturbance to the buffers. These outlet dispersal areas are being individually monitored for performance and wetland buffer protection. The standards for storm water construction exceeded the County requirements in effect at the time the UPD permits were issued, and continues to meet or exceed the standards in effect today with the CAO. The two bypass pipelines for conveying stormwater over the sensitive steep slopes of the Snoqualmie River valley are in place, and operating as anticipated. Control structures and flow splitters have been designed and constructed to adjust the rate and distribution of runoff as may be needed to maintain natural flow rates in wetlands and streams.

The King County Water and Land Resources Division (WLRD) has been monitoring the on site wetlands and downstream creeks through the period of project development, and has begun the required post development monitoring program. Based on their observations, the development has not resulted in statistically significant changes in the characteristics of identified environmental resources, including fish, wetland vegetation, water

level fluctuations, streams flows, channel stability, macroinvertebrate and amphibian populations, and surface water quality including Welcome Lake. A 150 page report prepared by WLRD (Appendix 2) provides a detailed analysis of their field monitoring findings to date. The post development monitoring will continue for up to 15 years, to develop a better understanding of the relationship of the project development to the surface water resources. In the event that adjustments are required to the storm water ponds or the water quality treatment systems, the post development monitoring fund includes a 12% remediation amount, and the storm water facilities were constructed with adjustable control structures. No remediation measures have been required to date.

2. Groundwater: The groundwater program is based on the need to maintain predevelopment groundwater levels and water quality, as stated in the UPD permits. Redmond Ridge installed three infiltration retention ponds on the west side of the development. These ponds were designed and constructed larger than anticipated by the Master Drainage Plan, based on detailed soil analysis. Following construction, they were tested and continue to perform better than expected, and therefore will have reserve capacity. The groundwater and precipitation data have been monitored by the developer continuously within Redmond Ridge, as required by the Redmond Ridge UPD/FCC permit. Eight years of continuous monitoring has been provided to the County and to Union Hill Water Association (UHWA) in 16 semi-annual reports. Meetings were held with UHWA on several occasions to discuss the findings in these reports. Additional groundwater monitoring has been done by the developer for design purposes during this period that provides additional information. The exceedence criteria established for the Redmond Ridge UPD permit has not been triggered. The monitored groundwater levels have remained consistent with the averaged elevations, and appear to correspond to precipitation amounts.

The shallow well protection program, established by the UPD/FCC permit conditions, was offered to all property owners who are located either within 1,000 feet of Redmond Ridge or Trilogy, within Novelty Hill Ranch Estates, or within 2,000 feet of the infiltration ponds. The program provided that if these property owners' wells failed to meet Health Department standards for either quantity or quality, the UPD developer would be required to replace the well or provide an alternate water source. A total of 14 property owners met the location criteria stated above, and were

registered in the program. Eleven of these properties, located within Novelty Hill Ranch Estates, were monitored under the program for five years following issuance of 75% of the building permits for the associated subbasin, and have now concluded their participation in the program. One of the other three properties will continue to be monitored under the program until 2008, and the other two will be monitored until 2012. Each of the participating properties were notified by mail when they became eligible for participation in the program, when construction activity began in their area, when the 75% level of building permits was reached, and when the protection program was complete for their property. None of the participating properties have reported degradation of their wells.

The Dawnbreaker Water Association well, serving approximately 78 homes, is also protected under the Trilogy Permit. The Association was notified when construction began in the associated basin, and will be notified when the next building threshold has been met (anticipated in 2006), to begin their last five year period of protection.

The water quality of the ground water, including the areas near the infiltration ponds, has been sampled and compared to wells in the surrounding area with no items of concern noted. Some nitrate levels were detected, but are consistent with County-wide patterns.

3. Welcome Lake: Welcome Lake, located in the Lake of the Woods subdivision, is downstream and northwest of Trilogy. This lake was created in the early 1960's by impounding water in a wetland system, and is a focal point of the Lake of the Woods neighborhood. The Lake was not adopted or proposed as a "sensitive lake" under the 1998 King County Surface Water Design Manual (SWDM), and is not located in a "sensitive lake treatment area" under the 2005 SWDM.

All of the lots within the UPDs draining to Welcome Lake have been recorded with a note that refers to a recorded covenant. This covenant indicates the property owners of these lots agree to waive their right to protest the formation of a lake management district that includes all properties within the Welcome Lake watershed. Development has taken place on over 75% of the UPD property that drains to Welcome Lake. The water quality ponds which drain to Welcome Lake were designed to a standard that exceeded both the King County Standards in place at the time of UPD permit issuance, and the requirements of the 2005 SWDM. No specific

standards of protection were specified for the Welcome Lake watershed by the UPD permits, but the goal of limiting phosphorous was implied in the midpoint review UPD permit condition.

The Lake of the Woods Homeowners Association has presented a study indicating concerns regarding silt and turbidity in the Lake, which they allege might be related to Trilogy construction. In response, staff notes that the erosion protection measures in Trilogy have been rigorously enforced, including all of the recommendations presented in the Lake of the Woods cover letter. Minor construction related events incidents which may have resulted in direct contributions to turbidity to downstream water have been identified by staff, and the concern for potential downstream degradation from turbidity is noted. One area of risk that is being addressed is the transfer of land ownership from the land developer to the home builder (or commercial site developer), so that the responsibility for erosion control is clearly identified at all times during the transition. Staff also notes that the report from Dr. Hadley dated June 26, 2006, which was attached to the Lake of the Woods letter, stated the "...nutrient loading and algal response have shown good stability...; it appears that this aspect of risk has been effectively mitigated."

The WLRD Post Development Monitoring program for the Welcome Lake area has just begun, since the subbasin reached the 75% build-out level in the Spring of 2006, which triggers the required monitoring. The County has accumulated and analyzed data collected by volunteers, consultants, and the King County Lakes Group. The accumulated data indicates there is no consistent long term trend toward decreased water quality in Welcome Lake. In fact, there is some evidence that total phosphorous has decreased in the water column over time.

D. TRANSPORTATION – ROADS AND TRAFFIC CIRCULATION

(The following findings and analysis were prepared by staff from the King County Department of Transportation, KCDOT.)

In accordance with the Hearing Examiner's conditions related to the Northridge UPDs, specifically the analysis of impacts at (what is referred to as) the Midpoint Review, Department of Transportation staff have evaluated the report (hereafter referred to as "Midpoint Analysis") prepared by the Applicant's consultant: The Transpo Group, dated August 2006.

In order to provide a comparative evaluation, independent of the consultant's work, KCDOT staff has also returned to the original traffic analyses prepared for the Northridge environmental review. Specifically, Appendix L of the Draft EIS for Northridge, dated May 1995.

The Hearing Examiner required the following issues to be addressed

- 1. The accuracy of background [traffic] level forecasts;
- 2. Levels of traffic generated cumulatively by [Redmond Ridge] and [Trilogy at Redmond Ridge];
- 3. The accuracy of assumptions regarding traffic generation by senior populations [Trilogy at Redmond Ridge] and business park [portions of Redmond Ridge South] populations;
- 4. The safety and efficiency of turning movements to and from Novelty Hill Road;
- 5. The adequacy of transportation management strategies to reduce traffic impacts;
- 6. The effects of increased traffic volumes, including cutthrough traffic, on the 218th/118th [sic] Avenue Northeast Corridor;
- 7. Identification of any intersections operating at LOS F which are impacted by UPD/FCC traffic;
- 8. Identification of critical road links impacted by UPD/FCC traffic which are over capacity."

KCDOT staff has been reviewing annual monitoring reports submitted by the Applicant's consultant since late 1999. These reports have served multiple purposes, including the identification of pending activity (following year's forecasts) in the two UPDs, identification of recommendations for scheduling the various off-site road construction requirements and/or payment of pro-rata shares referenced in Attachment 11 of the UPD permit, evaluation (beginning with the Fourth Annual Monitoring Report, submitted in December 2002) of the variances between the estimated (ITE) trip generation rates used in the Northridge and Blakely Ridge EISs, and monitoring of the 1350 vph 'trigger' for construction additional improvements (via the north or south backdoors, or

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¹ Per UPD Permit Attachment 11. At the point in time that a volume of 1350 vph was measured on Novelty Hill Road, eastbound in the PM Peak hour, east of 208th Avenue NE, and if construction funding was not programmed within four years for the Novelty Hill Road CIP (CIP 100992), the first of two 'backdoors': 236th/238th Avenue SE, south of Northridge, or NE 133rd Street, westerly from Blakely Ridge, was to be constructed by the UPD applicant. The Departments of Transportation and Development and Environmental Services would determine, in coordination, the order of the construction. The County Road Engineer recommended that the south backdoor: comprising projects "D, H2, and I" should be constructed first, based upon information in the 2000 Annual Monitoring Report, to ensure that substantial completion would have occurred at the point that forecast volumes would hit the 1350 vph threshold with 2001 forecasts.

additional improvements on Novelty Hill Road) or termination of the issuance of additional building permits² in the UPDs/FCCs.

These annual monitoring reports have served, as noted, to provide background data which would be evaluated with this Midpoint Review.

KCDOT staff has, as well, been monitoring traffic counts along the 216th/218th corridor. Prior to 2003, there was no physical roadway connection between 232nd Avenue NE and Trilogy Parkway; therefore UPD-generated trips had no reasonable ability³ to impact the roadways within the Lake of the Woods neighborhood.

1. The accuracy of background [traffic] level forecasts

The Midpoint Analysis provides a lengthy discussion about the comparison of the background traffic forecasts, and uses as the best possible point of comparison the forecasts and actual counts from 2000. This represented a point in time at which negligible development had been completed in the Redmond Ridge project -eliminating the potential impacts of UPD-generated trips from the project the count data.

With few exceptions, the data provided suggests that the background volumes measured during the PM peak hour are lower than were forecast in the Northridge EIS. Three off-site corridors: 208th Avenue NE between Union Hill Road and SR 202, 238th Avenue NE between Union Hill Road and SR 202, and, NE 133rd Street between Avondale Road and 218th Avenue NE, are reported to have experienced volumes exceeding the 2000 background volumes. The Novelty Hill Road/ 208th Avenue NE traffic signal was under construction at that general point in time, and the Union Hill Road/ 208th Avenue NE temporary signal may have been under construction at the time that the counts were taken. Each may have led to some of the increases on 208th Avenue NE south of Union Hill Road.

The SR 202 corridor is reported to have experienced significantly lower counts in the PM peak hour than were forecast in the Northridge EIS. The Applicant's consultant offers the explanation

² Each request for recordation of Divisions within the two projects was made contingent upon an evaluation of the impact of construction of the resultant homebuilding. The Department of Transportation provided memoranda to KCDDES with recommendations regarding potential recordation, and (as necessary) information about the mitigation measures (construction, payment of pro-rata shares) that would be triggered as a consequence.

³ UPD-generated trips that might have cut-through the Lake of the Woods neighborhood would have to follow a route westerly to Avondale Road, south to Novelty Hill Road, and east on Novelty Hill Road in lieu of a timelier route via Avondale Road and Novelty Hill Road.

that the capacity constraint associated with the corridor resulted in diversion to other routes. Although this explanation may account for a portion of the reduction, additional reasons may include saturation of the corridor during a PM peak one-hour period with volume increases in the period preceding and following the highest one-hour: a spread of the overall demand outside the peak hour due to the constraining capacity on SR 202. The increase in traffic volumes on alternative routes: Avondale Road, 204th Avenue NE and 238th Avenue NE, Novelty Hill Road eastbound in the PM peak hour, in the immediate area, north of SR 202, do not approach the magnitude of the reduction on SR 202. Absent information about changes in the area south of SR 202, or north on Woodinville-Duvall Road, the latter explanation appears more probable to KCDOT staff.

KCDOT staff concludes that the accuracy of the background counts during the peak hour, as compared to the forecasts for the peak hour, is reasonable given the criteria against which the project was being considered. No forecast of the spread of traffic volumes could be accurately made in the review of the project, although there appears to have been discussion of both the diversion and peak-hour 'spreading' phenomenon. There were no evident roadway projects under construction at the time to suggest the order of magnitude of deviation (actual volumes less than forecasts) between the forecast peak hour volumes and the actual field counts. Development on the Sammamish Plateau was occurring at the time, so eastbound trips on SR 202 from these projects would have continued to occur.

Field observations of travel conditions in the SR 202 corridor also suggest that, although diversion may have also occurred, the saturation of the corridor was evident. From a regulatory standpoint, this effect is not considered in the determination of a project impact. Neither was the resultant impact to the travel time that "a" particular commuter would experience through a corridor – as a result -- considered under the Code in effect at the time of approval of the Northridge and Blakely Ridge projects.

These issues were disclosed and discussed in the review and approval process for the projects.

2. Levels of traffic generated cumulatively by [Redmond Ridge] and [Trilogy at Redmond Ridge];

The Applicant's consultant has provided information in the Midpoint Analysis that re-states data submitted to the Department with the Seventh Annual Monitoring Report for the Redmond Ridge and Trilogy at Redmond Ridge projects.

Beginning with the Fourth Annual Monitoring Report, the consultant has been evaluating the trip generation of the Redmond Ridge site, and, beginning with the Fifth Annual Monitoring Report, the trip generation of the Trilogy at Redmond Ridge site.

Discussion of the Trilogy at Redmond Ridge project will be addressed in our response to Item #3, separately.

Trip generation from the Redmond Ridge site has been consistently trending to approximately 70%, or less, of the rates assumed for the Northridge environmental documents. Trip generation rates for the retail site in Redmond Ridge are reported to be approximately 88% of those reported in the EIS.

The Midpoint Analysis report, correctly, cites the statistical information in the Institute of Transportation Engineers Trip Generation Manual⁴ as supporting a reduced trip generation for the larger-scale (exceeding, approximately 750 dwelling units) residential developments. The fitted-curve equation for trip generation begins to deviate significantly from the 'average rate', with a resulting lower trip generation above (with one data point exception) that 750⁺/₋ dwelling unit threshold. Information regarding the effects of the Transportation Mitigation Program is also noted in the analysis. It is reported that 34% of the resident survey respondents indicated that their commute trips were taken by a mode other than driving alone (car/van pool), or not taken at all (telecommute, compressed work week), however no information is provided about the resident participation: number of surveys returned or percentage response by residents, in the survey. No definitive conclusion can be made, therefore, on the extent of TMP measures in reducing trip impacts of the development.

Traffic studies conducted in the mid-1990s in the area now within the City of Sammamish provided some documentation of residential trip generation rates that were less than the Institute of

⁴ 7th Edition, 2003.

Transportation Engineers rates for Single Family Detached Housing published at that time.

Traffic counts were performed by KCDOT in 1999 at the *Wilderness Rim* (Divisions 1 – 3) community access road, prior to the construction of a secondary connection by the developer of the plat of Uplands Snoqualmie Valley. The Wilderness Rim subdivision, located south of North Bend off of Cedar Falls Road, was developed to urban densities 4 du/ac and is located in an island of comparatively higher density development surrounded by more recent, typical- rural-scale, development. KCDOT's traffic counts arrived at net off-site trip generation rates that were similar, in order of magnitude, to the rates identified in both the Annual Monitoring Reports and the Midpoint Analysis.

These two cases lead to additional bases upon which to accept the conclusions reached about the net off-site trip generation of the proposed project.

Additional, but anecdotal, information has been provided to staff regarding the population of Redmond Ridge. The information provided suggests a higher than expected mix of residents with employment at the Microsoft Corporation offices in Redmond – a firm with an aggressive transportation demand management program (reflected in the information provided via the consultant, re: the TMP noted above) for employees.

KCDOT staff concludes that the trip generation statistics that have been collected by the Applicant's consultant are reasonable, consistent with prior years' data submitted in conjunction with the Annual Monitoring Reports, and appear consistent with data collected by the Department of Transportation for other comparable, albeit not identical, development projects in the eastern rural area of King County.

3. The accuracy of assumptions regarding traffic generation by senior populations [Trilogy at Redmond Ridge] and business park [portions of Redmond Ridge South] populations;

As a consequence of a confluence of external events, development of the business park has not occurred in the timeline⁵ evaluated in

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⁵ The traffic impact analysis assumed that, for the purposes of evaluation of a reasonable 'horizon year' of the UPD/FCC developments, the business park would be fully constructed by 2005. Traffic impact analyses generally assume a build-out/completion date for the development. Post-approval market conditions may

the traffic impact analysis portion of the Northridge environmental review. A limited number of building permits have been issued as of the date of the Midpoint Review; however, building occupancy – hence generation of trips -- has not occurred. No conclusion can, therefore, be reached at this time.

Development has occurred in the Trilogy at Redmond Ridge community. As of the date of last reporting available to KCDOT, 883 dwelling units (single family) within the Trilogy community had been made available for occupancy.

KCDOT staff and the Applicant's consultant have established locations where traffic count data could be collected that would result in capturing only those trips associated with the homes within the Trilogy project.

Trip generation estimates from the initial environmental review have not been realized at this point in time. The Trilogy project has, to date, seen only the construction of the single-family homes (including some of the attached/ "Auto-Court" type residences), and none of the multi-family housing that is proposed to the south of Novelty Hill Road. Nor has any portion of the Congregate Care facility been constructed. The units available at this time are more likely associated with adults who are likely to still be driving (hence, generating trip activity within and external to the UPD communities). This sample biases, in our opinion, the trip generation rates higher than might be reasonably expected if a more representative mix of uses had, to date, been constructed in the non-retail sites of the Trilogy project.

The Institute of Transportation Engineers <u>Trip Generation Manual</u>, notes that there continues to be limited amount of statistical data on this type of land use in spite of the passage of time since the Northridge and Blakely Ridge EIS. The cautionary statement in the Manual for this land use category (Land Use Category #251) alludes to the phenomenon of a potential disparity in trip generation rates between '[senior detached housing] *communities with very active, working residents*' as contrasted to '*communities with older, retired residents*.' This is comparable to the variance in trip generation rate for "typical" single-family residential development (Land Use Category #210) -- as a whole -- to the Land Use Category 251 average rates -- taken as a whole.

result in a date of project completion, or, a date of completion of development phase, that may be different than the assumption in the analysis.

The trip generation rate for this portion of the project, at this time, is lower by approximately 2% than expected for the PM peak hour inbound traffic. This reduces the impact, for example, of Trilogygenerated trips on the monitored segment and direction of Novelty Hill Road east of 208th Avenue NE.

The trip generation, however, is higher than expected for the outbound trips from the project. Overall, the trip generation of the senior housing population is higher (by approximately 3%) than estimated in the original traffic impact analyses.

KCDOT staff conclude that the trip generation rates for the senior housing population will, particularly in the P.M. peak hour, change as the project continues to develop. Furthermore, it is our opinion that trip generation for the project — as a whole — has a high probability of being lower — overall — than rates assumed for the UPD/FCC environmental reviews. This conclusion is reached as a consequence of the current development in Blakely Ridge/Trilogy being skewed towards more active/mobile residents in the single-family residential portions of the community, and the proximity of the to-be-constructed multi-family residential to the Village at Trilogy retail center. KCDOT staff will continue to monitor the trip generation with subsequent updates to the Annual Monitoring Report.

As noted, no data is currently available to draw any conclusion about the actual (vs. estimated) trip generation of the business park uses in the Redmond Ridge South business park. Similarly, no conclusion can yet be drawn for the degree of internalization of project trips between employment sites in the Redmond Ridge South Business Park and residential uses – as compared to the estimates in the Northridge EIS.

4. The safety and efficiency of turning movements to and from Novelty Hill Road;

Data from incidents reported in 2005 was evaluated to supplement information provided in the Midpoint Analysis prepared by the Applicant's consultant, and, to provide a 'moving' three-year accident history along the Novelty Hill Road corridor. Several intersections that were not analyzed in the DEIS/FEIS for the Northridge project, were included in the Midpoint Analysis as a result of citizen concerns brought to KCDOT (specifically, the 214th and 218th Avenues NE intersections from the Westchester

subdivision), to provide some consistency with the scope of the evaluation for the Redmond Ridge East environmental review, and to provide a more comprehensive evaluation of intersection impacts subsequent to the Northridge and Blakely Ridge approvals in the mid-1990s.

Intersections:

According to the data in the Midpoint Analysis, none of the intersections – aside from the intersection of Novelty Hill Road/Avondale Road inside the City of Redmond and West Snoqualmie Valley Road/ Novelty Hill Road – evaluated would meet the County's criteria for a High Accident Location. The criteria used by KCDOT staff is either (a) 3 or more accidents (regardless of accident rate – in terms of accidents per million entering vehicles) or (b) eight or more accidents (again, 'raw' number of accidents) in a three-year period.

Data in the analysis was, as noted, the most recently-available at the time of preparation of the report in early 2006. Since that time, data for 2005 has become available to KCDOT Traffic Engineering.

Based upon the addition of the 2005 data (and, "moving" the 2002 data out of the analyzed 3-year period), one additional intersection: Redmond Ridge Drive NE at NE Novelty Hill Road, is added to the list of locations meeting the HAL criteria. The intersection of Cedar Park Crescent (the secondary Northridge/Redmond Ridge entrance road onto Novelty Hill Road) has experienced a net increase of 1 accident (from 4 in a 3 year period, to 5 in a three year period). The Novelty Hill Road at West Snoqualmie Valley Road intersection experiences a reduction of 3 accidents in the 2003 – 2005 reporting period. Additionally, signalization of this latter intersection occurred in 2006, so, no conclusion could be reached even if the accident data had remained the same as the 2002 -- 2004 period. No additional data was available for the intersection of Avondale Road/ Novelty Hill Road, however, a significant revision to the intersection geometry occurred as a result of developer-improvements in the 2005/2006 time period, therefore, no conclusion of the continued applicability of the accident history would be able to be made.

The DEIS for the Northridge project did include the consultant's opinion that an accident history would develop "...at the intersection of Novelty Hill Road and the Northridge minor arterial [now, Redmond Ridge Drive NE]. This intersection is forecast to

operate at LOS E under the Northridge Buildout and Cumulative⁶ Scenarios⁷".

Roadway segments:

Data provided in the report suggests that, with one exception, Novelty Hill Road roadway segments fall below the Countywide average of accidents per million-vehicle-miles. This roadway segment: from 243rd Avenue NE to West Snoqualmie Valley Road, has been identified as a High Accident Roadway Segment by KCDOT. Improvements to the roadway: construction of a paved roadway shoulder on the north (uphill) side of Novelty Hill Road were required as a permit condition of the two UPDs. The overall geometry of the roadway segment does not meet current criteria for horizontal and vertical alignment, and, has geotechnical and critical area constraints that limit the ability to update the roadway alignment. Concept-level designs for a realignment of the Novelty Hill Road hill climb section prepared in the late-1990s suggest that abandonment of the existing roadway, together with a new alignment, with substantial cut-slopes, and lengthy bridging to match the elevations in the Snoqualmie River Valley, would be required to address the alignment of the existing roadway. This was also discussed⁸ in the DEIS for the Northridge project.

The DEIS and FEIS for the two UPDs identified that approximately 8% of their combined trip origins and trip destinations would use this roadway segment as a travel path. The roadway segment has been improved within the constraints of existing property rights, and a condition of approval of the Redmond Ridge East subdivision included a requirement to provide additional improvements to a point approximately 300 feet east of the 243rd Avenue NE intersection – at/near the crossing of Unnamed Creek at the western boundary of Parcel "O" in the Trilogy project.

Addition of the 2005 data to the three-year moving period of reported accidents suggests a net reduction of 2 accidents, and an

⁶ "Cumulative Scenario" was the scenario of evaluating the combined impacts of the Blakely Ridge and Northridge UPDs

⁷ Northridge Draft EIS, Appendix L "Northridge Urban Planned Development DEIS, Transportation Technical Appendix", Page 120

⁸ Northridge Draft EIS, Appendix L "Northridge Urban Planned Development DEIS, Transportation Technical Appendix", Page 87

annual average of 5.33 accidents per year, and an incremental reduction in the accident rate. It appears that the resultant accident rate would not cause the segment to fall 'below' the Countywide average. This roadway segment was identified in the DEIS⁹ as being an above-average accident occurrence location.

Data for the Avondale Road to 208th Avenue NE roadway segment for 2005 results in a net change of one additional accident – including accidents at the intersection of 208th Avenue NE -- through the 3-year period, as compared to the 2002 – 2004 3-year period evaluated in the Midpoint Analysis. This results in a negligible change in the overall rate of accidents.

No analysis was done for the Northridge DEIS/FEIS for this particular segment. Only roadway segments with an average accident rate exceeding a threshold 1.0 accidents per million-vehicle-miles were identified in the DEIS.

KCDOT staff concludes that, with the addition of 2005 data, accident histories at intersections and roadway segments along Novelty Hill Road are generally consistent with the information provided in the Northridge environmental review. One intersection appears to meet, now, the KCDOT criteria for a High Accident Location, however further analysis by DOT into causal factors and potential corrective actions (if any) that the Department may take at this location appears appropriate.

Accidents on the roadway segment between 243rd Avenue NE and West Snoqualmie Valley Road continue to occur at rates exceeding the average for the County, however, the rate of accidents has decreased from the rate of 2.75 accidents per million-vehicle-miles cited ¹⁰ in the Northridge traffic analyses to a rate of 1.75 accidents per million-vehicle-miles cited in the Midpoint Analysis. An incremental reduction from this rate has occurred as a result of the reduction in the number of accidents in 2005, as compared to the data from 2002, 2003 and 2004. No clear conclusion can be reached on the causal relationship – or the lack thereof -- between the reported improvement in accident rate and the shoulder improvements constructed by the UPD applicant per the Transportation Mitigation Agreement. It is our opinion that the

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⁹ Northridge Draft EIS, Appendix L "Northridge Urban Planned Development DEIS, Transportation Technical Appendix", Table 8, Page 30.

¹⁰ Northridge Draft EIS, Appendix L "Northridge Urban Planned Development DEIS, Transportation Technical Appendix", Figure 8 (Page 30) and Page 31.

shoulder has contributed to the reduction, and the reduction in the number of accidents per year following construction of the shoulder improvements in 2003 is certainly suggestive of the benefits provided. Additional analysis of the accident data by the Department of Transportation appears warranted.

6. The effects of increased traffic volumes, including cut-through traffic, on the 218th/118th [sic] Avenue Northeast Corridor;

Traffic volume data has been collected by the Applicant at sites within the Lake of the Woods community in 1994, 1998, 2003 and 2006¹¹. Additional traffic counts have been collected by the Department of Transportation in 2000, 2003 and 2006.

232nd Avenue NE was initially connected to an extension of NE 133rd Street, and not connected to Trilogy Parkway until the construction of improvements associated with Divisions 5 and 6 in Trilogy, limiting the potential use of the 218th and 216th Avenues Northeast by UPD-generated traffic until 2002. By the summer of 2004, the north backdoor was open to traffic from Novelty Hill Road to NE 133rd Street.

Traffic volumes measured along 218th Avenue NE, north of NE 133rd Street, reached a peak of 221 vehicles per hour in 2003 – shortly before the opening of the north backdoor. The NE 133rd Street-232nd Avenue NE connection was open to traffic in advance of the connection to the Trilogy Parkway section near Northeast 131st Place in Trilogy, suggesting that this increase in traffic volumes was not associated with UPD traffic. The right-of-way for the connection between 232nd Avenue NE and NE 133rd was created in advance of the recordation of the Trilogy Master Plat, and improved to a two-lane roadway prior to 2001.

Afternoon peak hour traffic volumes have increased by only 30 vehicles: 25 vehicles northbound and 5 vehicles southbound, over the 12 year period following the preparation of the Northridge DEIS.

The Northridge EIS Cumulative Forecast (Figure 30, Northridge DEIS), indicates that the expected volumes on this segment of 218th Avenue NE were 500 vehicles per hour, split 300 northbound and 200 southbound. This is substantially higher than the actual

¹¹ For the Northridge EIS Traffic Analysis, First Annual Monitoring Report (submitted in 1999), Redmond Ridge East EIS, and Midpoint Review, respectively.

volumes counted for the Midpoint Review. The incremental increase associated with still-pending development in Trilogy is not expected to result in traffic volumes greater than those forecast in the Northridge EIS traffic analysis. To the contrary, it is the opinion of KCDOT staff that the pending development in Trilogy and the Redmond Ridge Business Park is likely to result in only small changes in northbound PM peak hour volumes on 218th Avenue NE. This would be associated with a negligible number of Trilogy-area home-to-Lake of the Woods-area home trips during the afternoon peak hour, and changes in employment opportunities for Lake of the Woods-area residents as business park uses become available in the Redmond Ridge South business park. No estimate of either can be provided without further analysis.

KCDOT staff concludes that the estimates of trip activity on 218th Avenue NE were, at worst, accurate, and appear to have been significantly overestimated in the Northridge EIS. Trip activity, and levels-of-service at the 232nd Avenue NE/Trilogy Parkway intersection appear sufficiently low as to not suggest diversion of trips along the NE 142nd - 227th Avenue NE-218th Avenue NE route as demonstrated by insignificant (5, in the PM peak hour) increase of southbound traffic over the past 12 years.

Staff would also note that the 216th/218th corridor, from Woodinville-Duvall Road to NE 133rd Street has been identified on the County's Arterial Classification map as a Collector Arterial. Furthermore, the Bear Creek Community Plan and Area Zoning report identified this roadway as a collector (project BT-17) required to provide "needed south outlet to [to/from NE 133rd Street] the Ring Hill subarea."

7. Identification of any intersections operating at LOS F which are impacted by UPD/FCC traffic;

The Midpoint Analysis prepared by the Applicant's consultant has identified the current (as of March 2006) levels-of-service at all intersections analyzed in the Northridge DEIS, as well as the following additional eight intersections:

Intersection Intersection ID #

3	Redmond Road/ Novelty Hill Road
35	206 th Avenue NE/ Novelty Hill Road
36	210 th Avenue NE/ Novelty Hill Road
37	214 th Avenue NE/ Novelty Hill Road
38	218 th Avenue NE/ Novelty Hill Road
20	Redmond Ridge Drive NE/ NE 80 th Street
27	Trilogy Parkway/ NE 133 rd Street
28	232 nd Avenue NE/ NE 142 nd Street

Level-of-service "F" conditions, of these eight locations, and based upon the early 2006 traffic counts, were identified at:

Intersection	Intersection	Improvements
ID#		required as a
		condition of UPD
		Permit?
3	Redmond Road/ Novelty Hill Road	Yes. E/B LT and
		SB-to-EB merge
		Not Required to
36	210 th Avenue NE/ Novelty Hill Road	be Analyzed in
		EIS
		Yes. W/B LT and
38	218 th Avenue NE/ Novelty Hill Road	NB-to-WB
		merge ¹²

Several of these intersections were required to be improved by the UPD applicant, based upon project impacts at locations identified in the County's then-current Transportation Needs Report. Generalized statements were made in the Northridge DEIS¹³ that levels-of-service at these intersections: Redmond Road/Novelty Hill Road at build-out of Northridge (only) would be LOS "E" or better.

Only one intersection, #36: 210th Avenue NE/ Novelty Hill Road was (a) not evaluated in the Northridge EIS, (b) not identified as experiencing a general assessment of the level-of-service, and (c) now has a calculated level-of-service "F" condition.

Improvements were provided by the UPD applicant, as noted, at three of these locations Specifically, the applicant constructed a center turn lane (two-way left-turn-lane/ TWLTL) from a point

¹² See comments following, re: specific design

 $^{^{\}rm 13}$ Northridge Draft EIS, Appendix L "Northridge Urban Planned Development DEIS, Transportation Technical Appendix", Page 83

west of the 214th Avenue NE intersection to the intersection of Cedar Park Crescent Drive NE, where it becomes the eastbound left turn lane onto 220th Avenue NE. Although not analyzed as such in the Midpoint Analysis, the intersection could have been analyzed under the two-stage gap acceptance methodology, given the presence of the two-way left turn lane to receive northbound left turns out of the Westchester subdivision. This methodology typically results in levels-of-service better than those calculated without, however, the proximity of the horizontal curve in the alignment of Novelty Hill Road (west of 214th Avenue NE), and its impact on sight distance at the 214th intersection, would limit the potential effectiveness of the attempted two-stage movement.

210th Avenue NE would typically not be incorporated into a traffic impact analysis due to the limited side street traffic volumes – except in the scenario where the development being evaluated for impacts was proposed to take access *via* that side street.

Improvements were required at Redmond Road/ Novelty Hill Road per the UPD Transportation Mitigation Agreement. Construction included an eastbound left turn lane onto Redmond Road and a merge/refuge lane on Novelty Hill Road for southbound left turns off of Redmond Road. No improvement to LOS "E" or better appears likely without signalization of the intersection. A decision on installation of this type of right-of-way control is pending on the outcome of the Novelty Hill Road CIP EIS process.

A capital improvement project: CIP #100308, has been included in the County Executive's 2007 – 2012 proposed budget to install a span-wire traffic signal system at this intersection.

Additional improvements at this location have been required as a condition of approval for the Redmond Ridge East project.

SR 202

Intersections along State Route 202, from the SR 520 interchange to 244th Avenue NE, were not re-evaluated for the Midpoint Analysis. A WSDOT project to widen the highway from East Lake Sammamish Parkway to Sahalee Way was under construction at the time that the traffic counts would have been required to be performed for the report, and the resulting conditions would not

have allowed accurate data to be collected. Correctly, no count data from prior to the onset of construction was collected. Several of these intersections appeared to function at deficient levels-of-service prior to construction.

The Northridge EIS traffic analyses identified acceptable level-of-service "E" or conditions at both of the SR 202 intersections evaluated between East Lake Sammamish Parkway and Sahalee Way. The level-of-service at Sahalee Way/State Route 202 was forecast to operate at LOS "E" in the PM peak hour, and "D" in the AM peak hour, with both UPD projects built-out. No information was presented in the Northridge EIS, itself, or in the Midpoint Analysis, to identify the underlying assumptions, circa 1994, regarding the 2005 levels of development on the Sammamish Plateau and any differences with the current level of residential/commercial development.

Special discussion: Union Hill Road/ 208th Avenue NE

In the requested revisions/additional information submitted, the calculation of the existing conditions level-of-service was revised to arrive at a calculated level-of-service of "F" with a calculated delay of 79.4 seconds of delay and a v/c of 1.03. As noted, SR 202 is currently under construction, and some level of trip diversion has occurred onto 208th Avenue NE and 204th Avenue NE – as well as other routes serving the Union Hill area. This intersection is not impacted by threshold levels-of-service. If this level-of-service is not a transitory phenomenon associated with the SR 202 construction (see discussion on Item #1), but a new 'condition', it does <u>not</u> result in a newly identified (i.e. previously undisclosed), significant adverse impact of the Northridge/Blakely Ridge projects.

New LOS "F" conditions

New LOS "F" conditions were calculated in the first version ¹⁴ of the Midpoint Analysis to occur at the following intersections.

SR 202 at NE 124th

The Northridge EIS identified a calculated LOS "E" in the PM peak hour, and LOS "D" in the AM peak hour, for the Cumulative

¹⁴ A revised analysis was requested to minimize the potential error associated with the significant change in the Highway Capacity Manual since the date of preparation of Northridge FEIS.

development of Northridge and Blakely Ridge. The corresponding calculated levels-of-service for the Midpoint Analysis are "F" in both peak hours.

This intersection does not appear to be impacted by threshold¹⁵ levels of traffic from the UPDs. Trip distribution from the most recent transportation modeling indicates that UPD area traffic has less than 14%¹⁶ of its trips impacting the SR 202/ NE 124th Street intersection.

The UPD Applicant has been required, through negotiated settlement with the City of Redmond, to contribute \$1.5 million to an improvement of NE 124th Street¹⁷, west of the intersection, to mitigate impacts of the Redmond Ridge East project at this intersection.

NE Woodinville-Duvall Road (W) at NE Old Woodinville-Duvall Road.

The Northridge EIS identified a calculated LOS "E" in both the AM and PM peak hours, with a reserve capacity of fewer than 25 vehicles in each peak period, for the Cumulative development of Northridge and Blakely Ridge. The corresponding calculated levels-of-service for the Midpoint Analysis are "E" in the morning peak hour and "F" in the PM peak hour.

Redmond Ridge East Permit Condition 2.10.4.

¹⁵ Per KCC 14.80, adopted prior to the approvals of the Northridge project, a significant adverse environmental impact occurs when a project sends at least 30 trip-ends in the evaluated peak hour into an analyzed intersection, and, where those 30 trip-ends represent no less than 20% of the project trip distribution, and, the calculated level-of-service is at – or will fall to – a calculated "F".

¹⁶ Redmond Ridge East DEIS, Appendix H. Figure 18

¹⁷ City of Redmond reserved the right to apply these funds to any other roadway improvement project that is reasonably related to impacts of the Redmond Ridge, Trilogy, and/or Redmond Ridge East projects if the City abandons the NE 124th Street/ SR 202 improvement project.

[&]quot;If as provided in condition 2.10.6C below, Redmond elects to not construct the NE 124th St/SR 202 improvements, Quadrant shall pay Redmond the remaining balance of the sums identified in subsections 2.10.4 B and C above. All such funds shall be used by Redmond only for transportation improvements in the vicinity of Avondale Road, Novelty Hill Road, and/or Union Hill Road, or for such other transportation improvements within the City as Redmond deems appropriate to provide congestion relief and/or traffic safety improvements projects reasonably related to transportation impacts from Redmond Ridge East, Trilogy, or Redmond Ridge."

This intersection is not impacted by threshold¹⁸ levels of traffic from the UPDs.

This intersection is located within the project limits¹⁹ for CIP #100211, a corridor study of a "designated urban connector", in the County Executive's proposed 2007 – 2012 budget.

NE Novelty Hill Road at West Snoqualmie Valley Road.

The Northridge EIS identified a calculated LOS "C" in both the AM and "B" in the PM peak hours, evaluated as a signalized intersection, for the Cumulative development of Northridge and Blakely Ridge. The corresponding calculated levels-of-service for the Midpoint Analysis are "F" in both the AM peak hour and PM peak hour. Signalization of the intersection was a condition of permit approval of the UPD projects, and the UPD applicant contributed a pro-rata share towards the signalization of the intersection. Construction of the signal system was substantially completed shortly after the preparation of the Midpoint Analysis.

This intersection is not impacted by threshold²⁰ levels of traffic from the UPDs. Evaluation of the intersection level-of-service, under the now-signalized condition is pending for this report.

Avondale Road NE at NE Union Hill Road

This intersection was calculated to operate at LOS "E" in the AM peak hour, in the Cumulative development scenario, and LOS "F" in the PM peak hour, in the Northridge EIS. The Midpoint Analysis, based upon current intersection geometry, identifies that the AM peak hour falls to LOS "F", and the PM peak hour remains at LOS "F".

224th Avenue NE/Novelty Hill Road

This intersection was calculated to operate at LOS "E" in both the AM peak hour and PM peak hours in the Cumulative development scenario, in the Northridge EIS. The Midpoint Analysis, based upon current intersection geometry, identifies that the AM peak

¹⁸ See Footnote 15, above

¹⁹ Woodinville C/L [city limits] to Duvall C/L.

²⁰ See Footnote 15, above

hour falls to LOS "F", and the PM peak hour improves to LOS "E".

The UPD Applicant has been required to monitor impacts at the Redmond Ridge Retail site access. King County staff have indicated that a partial closure of the northbound driveway access may be required at a future date, as a consequence of levels-of-service or safety impacts. This would correct the deficient level-of-service for the northbound movement, and allow a re-striping of Novelty Hill Road to permit a merge-refuge lane for the southbound to eastbound left turn off of 224th Avenue NE.

Review of the level-of-service results in the Analysis identifies only one intersection that has the potential to be affected by threshold levels of traffic (volumes and percent distribution) from the UPD projects, and that may fall to level-of-service "F" with the remaining traffic from the Trilogy project. Novelty Hill Road at Cedar Park Crescent Drive NE is currently²¹ operating at LOS "E" in the AM peak hour. Volumes collected in 2006 at this intersection are substantially less than the forecast "Cumulative" volumes at build-out identified in the Northridge EIS²².

In response to the Midpoint Analysis, KCDOT staff requested a reanalysis of the intersections evaluated in the Northridge EIS, using the trip assignments and turning movement counts from that document, to attempt to provide a more accurate side-by-side comparison of calculated levels-of-service between the Northridge EIS and Midpoint Analysis. Calculations in the original environmental documents were analyzed using the then-current methodologies from the 1985 Highway Capacity Manual [HCM]²³. Calculations in the Midpoint Analysis were performed using the Synchro® software analysis package using the methodologies in the 2000 Highway Capacity Manual.

The results of the re-analysis were provided to KCDOT on 13 October 2006, and are as follows:

²¹ <u>Midpoint Review: Transportation Analysis Redmond Ridge UPD/FCC and Trilogy UPD,</u> Table 12, Page 68

²² <u>Midpoint Review: Transportation Analysis Redmond Ridge UPD/FCC and Trilogy UPD,</u> Appendix B-2, Page 3.

²³ Northridge Draft EIS, Appendix L "Northridge Urban Planned Development DEIS, Transportation Technical Appendix", Page 22

SR 202 at NE 124th Street

• Under an analysis using the current HCM, the SR 202 at NE 124th Street intersection would have been calculated to have been operating at LOS "F" with more than 120 seconds of delay with a v/c of 1.51 in the PM peak hour and a v/c of 1.24 in the AM peak hour. This is compared to the current LOS "F" with greater than 120 seconds of delay and a v/c of 1.37 in the PM peak hour and 1.22 in the AM peak hour.

The intersection is not impacted by threshold²⁴ levels of traffic from the Northridge/Blakely Ridge UPD/FCCs.

NE Woodinville-Duvall Road (W) at NE Old Woodinville-Duvall Road.

• Under an analysis using the current HCM, the Old Woodinville-Duvall Road/Woodinville-Duvall Road intersection would have been calculated to have been operating at LOS "F" with more than 120 seconds of delay for "westbound" trips continuing westbound on Woodinville-Duvall Road, in the PM peak hour. This is compared to the current LOS "E" with 41.5 seconds of delay.

The intersection is not impacted by threshold levels of traffic from the Northridge/Blakely Ridge UPD/FCCs²⁵

NE Novelty Hill Road at West Snoqualmie Valley Road.

• Under an analysis using the current HCM, the West Snoqualmie Valley Road/Novelty Hill Road intersection would have been calculated as operating at a LOS "F" with greater than 120 seconds of delay in the AM peak hour. This is compared to a calculated LOS "F" with 117.5 seconds of delay in 2006, but prior to the signalization of the intersection. In the PM peak hour, the revised calculated delay is consistent with the pre-signalization calculation of existing conditions at "greater than 120 seconds."

²⁴ See Footnote 15, above

²⁵ See Footnote 15, above

The intersection is not impacted by threshold levels of traffic from the Northridge/Blakely Ridge UPD/FCCs

Avondale Road NE at NE Union Hill Road

• Under an analysis using the current HCM, the Avondale Road/ Union Hill Road intersection would have been calculated as operating at a LOS "F" with greater than 120 seconds of delay in the AM peak hour and a v/c of 1.17. This is compared to a calculated LOS "F" with 82.9 seconds of delay in 2006, and a v/c of 1.03. In the PM peak hour, the analysis of the 2005 Cumulative development scenario from the FEIS would result in a delay of 120 seconds or greater with a v/c of 1.66. Current conditions (2006) are also "F" with a delay of 120 seconds or greater, but with a v/c of 1.42.

224th Avenue NE/Novelty Hill Road

• Under an analysis of the Cumulative development scenario (build-out of both Northridge and Blakely Ridge) using the current HCM, the 224th Avenue NE/ Novelty Hill Road intersection would have been calculated as operating at a LOS "F" with greater than 120 seconds of delay in the AM peak hour. This is comparable to the current conditions at the intersection. In both cases, both the northbound and southbound movements are indicated as being the worst movement – suggesting equivalent delays for both.

In the PM peak hour, the analysis of the 2005 Cumulative development scenario from the FEIS would result in a LOS "F" in the PM peak hour with a delay of 120 seconds or greater. Current conditions (2006) are "E" with a delay of 42.7 seconds for the northbound movement.

KCDOT staff concludes that there are intersections that have fallen to lower levels-of-service than were disclosed in the Northridge and Blakely Ridge "Cumulative" development scenario in the Northridge EIS. One intersection that was previously not

evaluated: 210th Avenue NE/Novelty Hill Road, is calculated to operate at level-of-service "F" and is impacted by threshold traffic volumes and trip distribution from the proposed projects. This impacts approximately 5 vehicles, or fewer, in the peak hour. Other intersections' levels-of-service are lower than previously forecast as a result of subsequent scope reductions, cancellations and delays of Capital Improvement Projects resulting from the legislative action following the public vote on Initiative 695 (1999) and the Supreme Court decision on the County's local option license fee resulting from Initiative 776²⁶.

Additional intersections along Novelty Hill Road: Redmond Road, 214th Avenue NE and 218th Avenue NE, that were identified as experiencing (at build-out) a generic level-of-service "E" in the FEIS, presumably on the basis of field observations, are now calculated at level-of-service "F". Subsequent research in the profession has allowed quantification of levels-of-service using a two-stage gap acceptance²⁷ concept that more accurately represents some drivers' behavior where a turn lane is available on the major street, and results in an improved level-of-service for the "STOP" controlled movement than would otherwise be calculated. The selection of which alternative is preferred for the Novelty Hill Road CIP: the 196th Avenue NE connection or improvements to the current Novelty Hill Road alignment, will also affect the volumes at this location and the improvements that might be constructed – including signalization of the Redmond Road intersection – and determine the actual levels-of-service. The issuance of a Draft EIS for the Novelty Hill Road CIP is scheduled for 2007, and construction of the resultant preferred alternative in 2009.

County staff note that several of the then-unsignalized intersections that were calculated to operate with negligible reserve capacity²⁸

²⁶ Pierce Co., et Al, Respondents v. The State of Washington, et Al, Appellants. 150 Wn.2d 422

²⁷ The driver makes an initial turn into the two-way left turn lane (first stage) with an acceptable gap in traffic arriving from the left, and then merges (second stage) to the "right" into the travel stream approaching from behind the vehicle. Individual driver behavior (assertiveness) dictates the percentage of drivers who will use the two-stage movement vs. the direct left turn into traffic approaching from the right. Available sight distance and merge distance are corresponding factors to the movement.

²⁸ The 1985 Highway Capacity Manual methodology used the concept of 'reserve capacity' – measured in terms of number of vehicles – at unsignalized intersections. A positive value indicated that additional capacity of that number of vehicles before a level-of-service failure at that location. The current Highway Capacity Manual methodology and software allows calculation of the intersection delay.

in the Northridge EIS. Current calculations, using the 2000 Highway Capacity Manual identify calculated average time delays (in seconds) which are not directly comparable. One intersection in particular, Old Woodinville-Duvall Road (w) at Woodinville-Duvall Road is not impacted by threshold volumes from the proposed project, thus does not represent a new significant adverse impact of the project. County staff would also note that the County Executive's proposed 2007 – 2012 budget includes intersection and signalization projects at intersections of Mink Road, 194th and 212th Avenue NE. Implementation of these projects would allow the formation of vehicle platoons – and gaps – in traffic along Woodinville-Duvall Road.

Many of the remaining unsignalized intersections are also impacted by levels of project below the KCC 14.80 thresholds.

The intersection of the Northridge Retail site/224th Avenue NE at Novelty Hill Road continues to be monitored for any potential accident history and level-of-service "F" conditions. The recordation of the plat for the Retail site included a note that reaffirmed the County's ability to restrict access from the driveway if an accident pattern involving northbound left-turning vehicles (those that would experience the deficient level-of-service, as well). The volume of traffic attempting the southbound left turn movement out of 224th Avenue NE, as with 210th Avenue NE, is negligible. Restriction of the left-turn access into/out of the Redmond Ridge Retail site would allow a re-striping of Novelty Hill Road to provide – as was done for the 214^{th} Avenue and 218^{th} Avenue intersections – a merge/refuge lane for southbound-toeastbound left turns. Although not analyzed with the Midpoint Review Traffic Analysis, the two-stage gap acceptance methodology for this left-turn movement would improve the delay for these vehicles.

8. Identification of critical road links impacted by UPD/FCC traffic which are over capacity."

The Midpoint Analysis prepared by the Applicant's consultant responds to direction provided by the Department of Transportation to utilize the current concurrency standard: average travel speed across multiple roadway segments. During the review of the Northridge project, the methodology²⁹ utilized for

²⁹ The Integrated Transportation Program replaced the previous Road Adequacy Standards in 1994

Concurrency incorporated the traffic volume value as a percentage of roadway capacity on a listed set of roadway links (multiple segments) in the vicinity of the proposed project.

The standard for a 'critical link³⁰' at the time of the Northridge UPD was a volume to capacity ratio of 1.1³¹ on a segment being impacted by 30% or more of the one-way project trips to/from a concurrency zone or a proposed development project.

At the time, five 'links' in the area were monitored for "Unfunded Critical Link Status":

- Avondale Road: Woodinville-Duvall Road to SR 520
- Woodinville-Duvall Road: Avondale Road to NE 195th
 Street
- NE 124th/ 128th Street: 132nd Avenue NE to Bear Creek MPDs
- Novelty Hill Road: Avondale Road to MPD new arterial
- SR 202: SR 520 to Sahalee Way

With the adoption of the new County Ordinance for the Concurrency portion of the ITP, travel speeds across a series of segments, on five roadway corridors in the area

•	Novelty Hill Road	3 segments
•	Avondale Road	4 segments
•	Union Hill Road	3 segments
•	236 th / 238 th Avenue NE/ Redmond Ridge Drive NE/Trilogy Parkway NE	2 segments
•	NE 133 rd Street	1 segment

³⁰ For these purposes, a 'link' was a generalized road connection: Avondale Road to the MPD new arterial [Redmond Ridge Drive NE] for example, rather than a 'link' as a section of roadway connecting two intersections.

21

³¹ The increment of 0.1 over the estimated capacity of the roadway was incorporated to account for development projects which might receive concurrency certificates, but either fail to be constructed or be scaled back. Either scenario could occur without the knowledge of KC Transportation Planning, hence, could result in a "false positive" scenario of inadequate capacity for a subsequently sought development application: with the effect of denying an, in reality, approvable development proposal.

Average travel speed thresholds are 28 mph for rural segments of principal arterials [Novelty Hill Road, for example], 24 mph on minor arterials, to meet the adopted level-of-service criteria: B. LOS "E", with a corresponding travel speed of 13 mph and 10 mph for principal and minor arterials, respectively, is the adopted standard in the urban area. As with the previous versions of the Concurrency program, the threshold has to be met for a segment that is impacted by 30%, or more, of the project trip distribution.

Based upon the current methodology, only the following segments would fail the current concurrency threshold average travel speed/level-of-service threshold/trip distribution thresholds:

- Novelty Hill Road, both directions, Avondale Road to 208th Avenue NE³² (rural)³³
 - o 27.8 mph eastbound Threshold = 28 mph
 - o 24.1 mph westbound Threshold = 28 mph

All other roadway segments/directions meet the applicable standard or are impacted by less than 30% of the trip distributions from the Northridge/Blakely Ridge sites.

Roadway segments that fail the current concurrency threshold, but are impacted by less than 30% of the trip distribution:

- Novelty Hill Road, from Trilogy to West Snoqualmie Valley Road
 - \circ 18.9³⁴ mph eastbound Threshold = 28 mph
 - \circ 29.8²⁶ mph westbound Threshold = 28 mph

Under the former concurrency methodology, a basic segment capacity was – as noted – used. The capacity of the roadway

³² Delays for traffic queues to be processed through the Novelty Hill Road/ Avondale Road intersection is cited as the basis for the travel delay. This is consistent with discussion in the project hearing process, and anecdotal information provided more recently.

³³ The Applicant's consultant presents the situation (the below-standard travel speed), and correctly notes that a 'failed concurrency condition' would exist based only on the 2004 substantial revision to the concurrency program, but also suggests that Novelty Hill Road has some characteristics of an 'urban' facility as a connector to urbanized areas: Duvall, for one example, in the rural areas of King and Snohomish County.

³⁴ The effect of the roadway alignment on travel times, hence travel speeds, is unstated

segment of Novelty Hill Road: 208th Avenue NE to 214th Avenue NE, was previously established in the analysis as 1350 vph. This value was incorporated into the UPD permit conditions for the 'trigger' for the opening of the first backdoor connection, then, with re-achievement of the volume, the opening of the second backdoor. Upon the re-achievement of the 1350 vph count, east of 208th Avenue NE, in the eastbound direction in the PM peak hour, three requirements were identified: two of which would be conditions upon continued development, the third, termination of building permit issuance.

The traffic counts performed by the Applicant's consultant for the Annual Monitoring Reports, and traffic counts performed by KCDOT, have identified that this 1350 vph capacity was a reasonable assessment of the capacity of the link. Volumes have approached that level. Information provided by the consultant has shown that some variability has occurred during the hour preceding and following the peak one-hour, and that these remaining two one-hour periods have approaching the volume in the highest one-hour period. This increase in the 'spread' peaked, in October 2001 when the eastbound volumes during the peak hour were only slightly more than 1/3 of the total 3-hour volume. Although there appears to be some minor discrepancy (the peak one-hour is less than 1/3 of the total 3-hour volume) for the October 2001 eastbound traffic count in the AM peak, this pattern corresponds to that observed for PM peak hour for eastbound traffic – a closer distribution of the volumes in across the 3-hour period. This may be associated with construction activities, since the UPD applicant had completed the improvements to projects A1-1 (Westchester frontage), A1-3 (Redmond Road), L (Redmond Ridge frontage) the following year: 2002.

KCDOT staff concludes that the estimates of the impacts of the project were reasonably assessed and/or discussed/disclosed during the review of the project. Based upon <u>current</u> methodology, and conditions prior to the construction of the Novelty Hill Road CIP, one roadway segment (but, in both directions) would fail the threshold average calculated travel speed and be impacted by threshold trip percentages from the Northridge and Blakely Ridge projects.

Phase I of the Novelty Hill Road CIP, funded for a construction start in 2009, is programmed for this roadway segment.

Alternatives that would divert traffic away from the Avondale Road/Novelty Hill Road intersection are under evaluation in the

EIS process. The extent to which these alternatives will improve the overall travel time through this corridor cannot be precisely determined until a preferred alternative is selected through the environmental review for the CIP.

E. TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a requirement for both of the UPDs. Trilogy at Redmond Ridge recognized that the needs of an age restricted community included transportation options. Redmond Ridge has had additional requirements associated with being designated a Fully Contained Community (FCC). Conditions for TDM that are inherent in the design of these projects include the density and clustering of housing. coordinated walking and bicycle routes, employment centers and basic services located on site (e.g., food, medical, banking, broadband internet), and a walk-only elementary school. For travel to and from areas outside of these developments, the two communities provide several alternatives and incentives to limit the number of vehicular trips. Commercial properties include bicycle parking and preferred parking for carpool and vanpool vehicles. A Park and Pool lot for 50 vehicles (expandable to 75 vehicles) is in operation (Redmond Ridge Drive at Cedar Park Crescent), and a second Park and Pool lot of comparable size will be constructed in conjunction with the adjacent business park site (Redmond Ridge Drive at Marketplace Drive). Both UPD developers have developed a Transportation Management Program and Transit Service Plan to promote and support ridesharing through the use of vanpools, carpools, a limited shuttle service into Redmond, and free bus tickets. Several residents expressed concern over the adequacy of the shuttle to serve their needs. As part of the annual TDM report, DDES will require a commuter survey to get feedback on residents' needs and revise the shuttle operation accordingly. Typically five to six vanpools and additional carpools operate from Redmond Ridge to the Microsoft campus and Renton/Tukwila Boeing facilities. The 2005 annual survey of Redmond Ridge residents noted that 19% of the commute trips used vanpools and carpools. The numbers of peak-hour residential Redmond Ridge trips are 30% lower than anticipated in the Redmond Ridge EIS, while the Trilogy trips are within 2-3% of the EIS projections. (It should be noted that the Redmond Ridge EIS already included a 2.6% reduction in vehicle trip forecasts, to reflect potential TDM and public transit service.) Some of the Redmond Ridge reduction in trips that has occurred may be attributed to the alternatives provided in the Transportation Management programs, and some to the availability of on-site services. Transpo, the developers'

traffic consultant, notes that the actual trip generation of urban communities larger than 750 dwelling units is lower than the average rate used in the EIS based on the ITE Trip Generation Manual, 7th Edition, 2003. KCDOT traffic counts at comparable large isolated developments have also shown reduced trip generation rates.

King County has included the Redmond Ridge community as a Rapidly Growing Area to be provided peak period transit service under the Transit Now initiative (Proposition 2), which was approved by the King County Council as Ordinance 15582 on September 5, 2006. Proposition 2 was approved by the voters in the November 7th election and the Redmond Ridge community is likely to receive regular peak-hour Metro transit service in the near future, as the population and the business park continue to grow.

D. TRANSPORTATION – CITY OF REDMOND COMMENTS ON THE NOVELTY HILL ROAD CIP

The City of Redmond provided comments on the UPD Midpoint Review. In a letter from its attorney, James E. Haney dated June 28, 2006 (see Attachment 4), the City raises concerns over the lack of progress on the Novelty Hill Road CIP Project (Project #100992) and a perceived 'funding gap' to complete the project. The City requests that through the Midpoint Review Process, the County take one of three courses of action: 1) commit to building the Novelty Hill Road CIP improvements by providing whatever funding it takes (including shifting funds from other County projects if necessary to close the \$8.4 million funding gap); or 2) stop all development within the UPDs once Novelty Hill Road reaches capacity; or 3) identify and require the funding and construction of additional mitigation by Quadrant that will either reduce traffic on Novelty Hill Road to an acceptable level or provide additional capacity on Novelty Hill Road sufficient to accommodate additional trips generated by the UPDs.

The King County Department of Transportation believes a funding plan, using a range of traditional funding sources is in place for this project. This includes an assumption of \$8,430,000 in future state and/or federal grants. Below is their analysis of the funding mechanics and the current state of those elements.

Project #100992 has a total of \$32,530,000 programmed in the 2006-2011 six year CIP as follows:

2006	\$1,148,000	Ultimate project EIS
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2007	\$4,981,000	Ultimate project EIS and Phase I Design,	
		R/W acquisition	
2008	\$7,044,000	Phase I Design, R/W acquisition	
2009	\$19,357,000	Phase I R/W acquisition, construction	

The County Council, in adopting the 2006-2011 CIP, continued its support of the sale of bonds in the amount of \$20 million as funding for the project. This \$20 million of bond funds combined with a reasonable assumption of \$8,430,000 of future state and/or federal grants, \$2,635,025 of developer contribution via the Mitigation Payment System (MPS) and a contribution of \$1,281,000 from the Road Fund, and \$184,000 remaining from an existing federal grant provides the revenue for the project as programmed.

In addition to the funding programmed in the 2006-2011 CIP, the County has already spent or appropriated in prior years a total of \$8,795,574 to complete the EIS for the ultimate project and acquire right of way in the vicinity of 208th Avenue NE.

The Executive Proposed Roads 2007-2012 six year CIP continues to program the project expenditures at the same total project amount. The only difference is the mix of the assumed revenues available to fund the project. The County submitted an application for regional federal grant funding in the amount of \$5 million. That application was not successful. In order to keep the expenditures programmed at the same amount, the mix of revenues was adjusted slightly. The Executive Proposed Roads 2007-2012 CIP assumes \$23,400,000 of bond revenues as funding for the project. In addition, the total amount of future grant funding has been reduced to \$5,000,000.

VI. CONCLUSIONS

- 1. The UPD Permit Midpoint condition (Sec. 3.9, Northridge UPD/FCC Permit and Sec. 3.9.3, Blakely Ridge UPD Permit) made provision to exclude certain matters from in-depth review as part of the Midpoint analyses, if DDES concluded:
 - Cumulative impacts in such areas fell within the range of environmental impacts identified in the EIS documents,
 - Environmental impacts in these areas have been adequately mitigated, and...

 The applicants have complied with the relevant UPD/FCC permit conditions which relate to the area of potential environmental impact.

DDES has concluded the above three criteria have been satisfied with respect to environmental impacts in the areas of solid waste; energy; recreation; wildlife; landslide activity; population, employment and housing; public water and sewer service; aesthetics, light and glare; and air quality. County staff has not observed, nor has public testimony brought to light, any evidence related to these topics which led DDES to a conclusion that unanticipated or unmitigated environmental impacts have been occurring.

- 2. <u>Schools, Police, Fire and Emergency Services</u>: In the case of each of these public services, the cumulative impacts from the development of Redmond Ridge and Trilogy at Redmond Ridge, thus far, has been substantially less than was predicted in the EIS process. The applicants have satisfactorily complied with the UPD/FCC permit conditions regarding these public services, and have contributed to the development of additional infrastructure to address the impacts from these two development projects. DDES is not aware of any unmitigated impacts on these public services from the development of Redmond Ridge and Trilogy.
- 3. <u>Noise Impacts</u>: Residents of Trilogy at Redmond Ridge living adjacent to Novelty Hill Road have expressed concerns over the high levels of traffic noise coming from Novelty Hill Road. While the arterial traffic noise may be objectionable, the current decibel level does not exceed the general projection for noise levels adjacent to Novelty Hill Road that was projected in the UPD EIS.

4. Water Resources:

Surface Water

The Master Drainage Plans developed for the two projects have been fully implemented, and development in several sub-basins has been completed or nearly completed and occupied. The constructed stormwater facilities for flow control and water quality treatment are operating as expected, and downstream wetlands and streams do not have observable changes as a result of development. There have been no unexpected impacts resulting from surface water runoff from the development. The Master Drainage Plans and permit conditions have provided the necessary measures to mitigate development impacts. The post development monitoring program has begun, and will continue to observe and measure the

facilities' performance and any downstream impacts. Minor fine-tuning adjustments to the stormwater facilities can occur, if necessary, using the set aside mitigation fund included as part of the post development monitoring program.

Groundwater

The groundwater monitoring which began prior to development activity has continued in Redmond Ridge thru the present. The shallow well protection monitoring program was provided for 15 wells, and will continue until 2012 when the last three wells (including the Dawnbreaker Well) complete their protection monitoring period. No degradation of ground water levels or water quality has been identified through the monitoring thus far, or reported by the property owners participating in monitoring program. Ground water levels in Redmond Ridge have remained consistent with precipitation volumes. The infiltration ponds and other mitigation conditions have adequately mitigated impacts to groundwater, with no unexpected impacts. The groundwater elevations and water quality will continue to be monitored following the completion of development under the post development monitoring program.

Welcome Lake

Welcome Lake has been evaluated for changes in nutrient and phosphorous levels by King County, volunteer groups, and representatives of the Lake of the Woods Homeowners Association. The results indicate that these levels have remained constant or declined slightly, since UPD development in the watershed commenced. The UPD permit conditions and the Master Drainage Plan have adequately mitigated the Welcome Lake phosphorous loading and eutrophication concerns. The Lake of the Woods Homeowners Association concerns that some turbidity impact to the Lake from construction erosion may have occurred have been shared with the developers, and the construction contractors. The implementation of proactive erosion control measures is a permit requirement and needs to continue at all times for the entire development, including in the Welcome Lake watershed. The required covenant waiving the right of protest to the formation of a Lake Management District has been applied to all UPD properties within the Welcome Lake watershed.

5. <u>Transportation – Roads and Circulation</u>: Department of Transportation staff have evaluated the information presented and supporting information from the Applicant's Annual Monitoring Reports. We conclude that the impacts of the Northridge and Blakely Ridge Project were accurately disclosed. Intersections levels-of-service, and link traffic volumes, whether (from a Code compliance standpoint) previously disclosed as

"acceptable" or "deficient" are consistent with those published in the environmental documentation for the project. Trip generation for the two projects, where available at this time, is either at or below the rates published in the EIS. Diversion of trips through the "Lake of the Woods" neighborhood is substantially less than the extent disclosed to the public through the environmental review and hearing process.

6. Transportation – Response to Letter from City of Redmond: The City of Redmond raised concerns in its June, 2006 letter regarding the funding and construction timing of the Novelty Hill Road CIP. The County is committed to the construction of Phase I of NE Novelty Hill Road. To that end, The Executive Proposed 2007-2012 Roads CIP continues to program funds to begin construction of the project in 2009. The County, with support from the City of Redmond, will continue to seek grants to offset the costs at every opportunity. The Novelty Hill Road improvement is a large, high priority, capital improvement project that both the City and County continue to support and substantial progress is underway towards its construction.

VII. <u>RECOMMENDATION</u>

The Department of Development and Environmental Services recommends the following requirements be applied to the Redmond Ridge (Northridge) UPD/FCC (File Nos. L94UP001 and L96FC001) and the Trilogy at Redmond Ridge (Blakely Ridge) UPD (File No. L94UP002).

- 1. King County Department of Transportation (KCDOT) will further monitor and analyze the Redmond Ridge Drive and NE Novelty Hill Road intersection as a possible High Accident Location (HAL) and the NE Novelty Hill Road roadway segment between 243rd Avenue NE and West Snoqualmie Valley Road as a possible High Accident Roadway Segment. The monitoring and analysis will be to determine the causal factors for accidents and potential actions that may be required for these locations. This work is to be integrated into the normal work programs at KCDOT. No corrective action by the Redmond Ridge or Trilogy at Redmond Ridge developers is required for these locations.
- 2. KCDOT staff will also continue to monitor the trip generation rates for the senior housing population in Trilogy at Redmond Ridge, based upon information provided in the applicants' consultant's annual monitoring reports.
- 3. The Post Development Monitoring Program, established under the Master Drainage Plans and UPD/FCC permits for these projects, should continue. King County Water and Land Resources Division shall make adjustments

to the parameters for measurement, as appropriate, to provide the most useful information regarding the effectiveness of the project mitigation including the constructed stormwater treatment system, and the effects of the development on the natural ecosystem. This adjustment to measurement parameters shall be completed by WLRD within three months of the completion of the "Midpoint" process.

RIGHT TO APPEAL

This Midpoint Review Report for Redmond Ridge (formerly known as Northridge) and Trilogy at Redmond Ridge (formerly known as Blakely Ridge) ("Midpoint Review Report") may be appealed in writing to the King County Hearing Examiner, with a fee of \$250 (check payable to King County Office of Finance).

Pursuant to Sections 3.9.f and 3.10 of the Northridge UPD/FCC permit, the appeal period shall be twenty-one (21) calendar days and shall commence on the third day after the Midpoint Review Report is mailed.

Filing an appeal requires actual delivery of a Statement of Appeal to the King County Land Use Services Division prior to the close of business (4:30 p.m.) on **December 7, 2006**. Prior mailing is not sufficient if the Division does not receive the Statement of Appeal within the applicable time period. The Examiner does not have authority to extend the time period unless the Division is not open on the specified closing date, in which event delivery prior to the close of business on the next business day is sufficient to meet the filing requirement.

The statement of appeal shall identify the action being appealed including the file Number (Midpoint Review Report for Redmond Ridge and Trilogy at Redmond Ridge, DDES File No. L03MI042) and shall specify in detail the errors alleged to exist in the Midpoint Review Report.

Failure to timely file an appeal fee or statement of appeal deprives the Examiner of jurisdiction to consider the appeal.

If no timely appeal of the Midpoint Review Report is filed, its findings, conclusions, and recommendation shall become final and non-appealable following the 21 day appeal period referenced above.

Appeals must be submitted to the Department of Development and Environmental Services, addressed as follows:

LAND USE APPEAL
Land Use Services Division
Department of Development and Environmental Services
Black River Corporate Park
900 Oakesdale Avenue Southwest
Renton, WA 98057-5212

For more information regarding appeal proceedings and pre-hearing conferences, please contact the Office of the Examiner for a Citizens' Guide to the Examiner Hearings.

Appendices

- 1. Redmond Ridge & Trilogy Midpoint Review Summary Document of Findings, prepared by Hugh G. Goldsmith & Associates, Inc., August, 2006
- 2. Trilogy and Redmond Ridge Urban Planned Development (UPD) Natural Resources Monitoring Midpoint Review, prepared by the King County Water and Land Resources Division, November, 2006
- 3. October 12, 2006 Memorandum from Gretchen Brunner and Tracy Patton, Blumen Consulting Group to Bonnie Geers, Quadrant Homes